

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as currently amended and in light of the following discussion, is respectfully requested.

Claims 1-14 are currently pending in this application, Claims 1-14 having been amended. Support for the amendments to claims is found in the original claims, in the specification at page 11, and in Fig. 5, for example. No new matter is added.

In the outstanding Office Action, Claims 1, 2, 4, 8, 9, and 11 were rejected under 35 U.S.C. §102(e) as anticipated by Izumi (U.S. Patent No. 6,577,641); and Claims 3, 5-7, 10, and 12-14 were objected to for depending upon a rejected base claim, but would be allowable is rewritten in independent form including all the elements of the base claim and any intervening claims.

Claims 1-14 are amended to more clearly describe and distinctly claim Applicants' invention, and no new matter is added. Claim 1 is amended to remove the word "means" and to clarify that 35 U.S.C. §112, sixth paragraph, is not intended to apply to the recited features.

Amended Claim 1 is directed to a dynamic bandwidth assignment system including a network unit configured to carry out cell slot assignment, and a network termination unit configured to transmit cells to the network unit by cell slots assigned by the network unit. The network unit includes a detecting unit configured to detect valid cells and idle cells the network unit receives from the network termination unit. A decision unit is configured to output a decision result on a cell slot assignment to the network termination unit based on the detection result by the detection unit. A cell slot assignment unit configured to control the cell slot assignment to the network termination unit in response to the decision result of the decision unit. This configuration allows for reducing cell transfer delay.¹

¹ Specification, page 6, lines 26-27.

With respect to the rejection of Claim 1 as anticipated by Izumi, it is respectfully submitted that Izumi does not teach or suggest every element of Claim 1. Claim 1 recites “a detection unit configured to detect valid cells and idle cells said network unit receives from said network termination unit.” Indeed, Izumi does not teach or suggest this element of Claim 1.

On the contrary, Izumi teaches a system for allocating time slots in a TDD system where a frame has a predetermined number of time slots. In each frame, Izumi teaches forming a fixed block including a transmitting time slot and a receiving time slot.² By forming a fixed block, Izumi teaches reducing the timing advance problem by only having one change from transmitting to receiving per frame.³ Izumi teaches determining if the time slots will be receiving time slots or transmitting time slots by determining the amount of information to be transferred.⁴ However, determining the amount of information to be transferred does not teach or suggest the recited “detection unit configured to detect valid cells and idle cells said network unit receives from said network termination unit.”

The invention defined by Claim 1 relates to an Asynchronous Transfer Mode-Passive Optical Network (ATM-PON), which is under international standardization by the International Telecommunications Union-Telecommunication Standardization Sector.⁵ Izumi teaches the use of time slots (i.e. transmitting time slots and receiving time slots). In conventional techniques, a cell slot is assumed to be a time slot, but the invention defined by Claim 1 uses cell slots as cell slots because the ATM-PON uses cells.⁶ Thus, Izumi does not teach or suggest “a detection unit configured to detect valid cells and idle cells said network unit receives from said network termination unit.”

² Izumi, col. 4, lines 23-25.

³ Izumi, col. 6, lines 1-4.

⁴ Izumi, col. 6, lines 26-29

⁵ Specification, page 1, lines 9-13.

⁶ Specification, page 13, lines 10-12.

Amended Claim 1 further recites “a decision unit configured to output a decision on cell slot assignment to the network termination unit based on the detection result by said detection unit.” Indeed, Izumi does not teach or suggest this element of Claim 1. The decision taught by Izumi is whether to allocate a time slot as a transmission time slot or a receiving time slot, and this is done in reference to the amount of information to be transferred.⁷ Thus, Izumi does not teach or suggest “a decision unit configured to output a decision on cell slot assignment to the network termination unit based on the detection result by said detection unit

Finally, amended Claim 1 recites “a cell slot assignment unit configured to control the cell slot assignment to the network termination unit in response to the decision result of said decision unit.” Indeed, Izumi does not teach or suggest this element of Claim 1 because Izumi does not teach or suggest the “decision unit” of Claim 1.

In view of the above-noted distinctions, it is respectfully submitted that Amended Claim 1 (and its dependent Claims 2 and 4) patentably distinguish over Izumi. Amended Claim 8 is similar to amended Claim 1. Therefore, it is respectfully submitted that Claim 8 (and its dependent Claims 9 and 11) patentably distinguish over Izumi for at least the reasons given for amended Claim 1.

It is respectfully requested that the references submitted in the Information Disclosure Statements filed June 14, 2001 and August 19, 2003 be considered on the record, and that the Examiner send the undersigned checked off PTO-1449 forms to that effect.

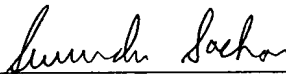
⁷ Izumi, col. 6, lines 26-29.

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Consequently, in view of the above amendments and comments, it is respectfully submitted that the outstanding rejection is traversed and that the pending claims are in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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